



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBW109-3101-75-101
Job Sheet 187488



Part No: RBW109-3101-75-101

Job Qty: 1 *pcs 6ea.*

Part Name: Wrench, Flight Controls Servo Actuator Joint Removal/Installation



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 12/5/18

Job Tracking No:

Due Date: 2/22/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBW109-3101-75-101 Rev.0 IPP Rev. A 18.12.04 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	SL-2500Y - 1	1 pcs	2/22/19	2/22/19	0.00	0.50	SL-2500Y - 1	
110	QC 2	1 pcs	2/22/19	2/22/19	0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 16	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 38	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 54	
							QC 2 - 56	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	
							QC 2 - 8	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S146066



Part: RBW109-3101-75-101

Job No: 187488

Serial No/Batch: S146066

Revision: 0

Inspector:

Exp Date:

Instructions:

Date: 01/20/19

DAS
56
9-89

PMP 2019-01-22

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details: _____					

120 QC 8	1 pcs	2/22/19	0.00 0.00	QC 8 - 12	
				QC 8 - 14	
				QC 8 - 16	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	5 C. 12 19-01-22
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 38	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
130 Outsource - 13 - Zinc Plating	1 pcs	2/22/19		GRO002-VC	019-0-25
140 Packaging 2-1 - Receive - B4B	1 pcs	2/22/19	0.00 0.00	Packaging 2 - 1 - B4B	
				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	JAN 30 2019
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
150 QC 6	1 pcs	2/22/19	0.00 0.00	QC 6 - 16	DAS
				QC 6 - 38	38
				QC 6 - 42	9-89
				QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	
160 Packaging 3-1 - Stock - B4B	1 pcs	2/22/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	DAS
				Packaging 3 - 4 - B4B	28
				Packaging 3 - 5 - B4B	9-89
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
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				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
170 QC 21 - FG	1 pcs	2/22/19	0.00 0.00	QC 21 - FG - 16	DAS 21 FEB 01 2019
				QC 21 - FG - 21	45
Part Op 100 - 1-Machine as per folio FC <u>577</u> FOLIO REV: <u>AA</u> DWG REV: <u>0</u> 2-Deburr Descriptions: 120 - Engrave T/N and/or P/N number using MARKTRONIC engraver as per DWG. <u>2019-01-17</u> 130 - Issue P/O; <u>0952100</u> -Zinc plate, ASTM B633 TYPE 2 SC2 -Color; yellow -Material type; 4140 -Certificate of Conformity is required 140 - Certificate of Conformity is required					
Job BOM					
Part / Item	Component Name	Quantity	Operation	Container	
MT-A513-T-1.500W0.187	ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING (DOM), 1.500" Dia X 0.187" Wall	.4630 (.463 ea)	100-SL-2500Y - 1	5144622 198" 59"	
Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	
100-SL-2500Y - 1	MT-A513-T-1.500W0.187 <u>MAT 009-A</u>	0	012	0	
Part Specifications					
Specifications could not be found.					

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

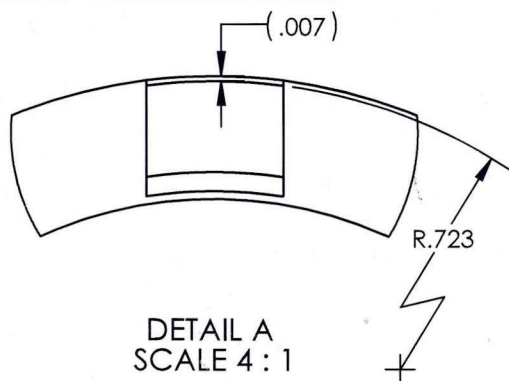
NCR No. _____

Route update only ☐

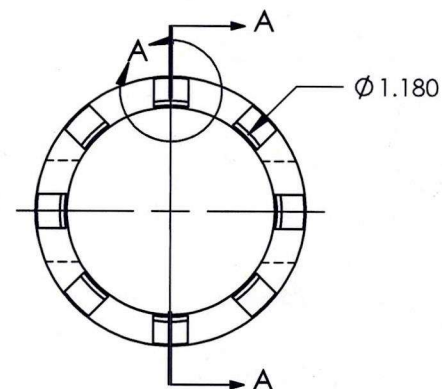
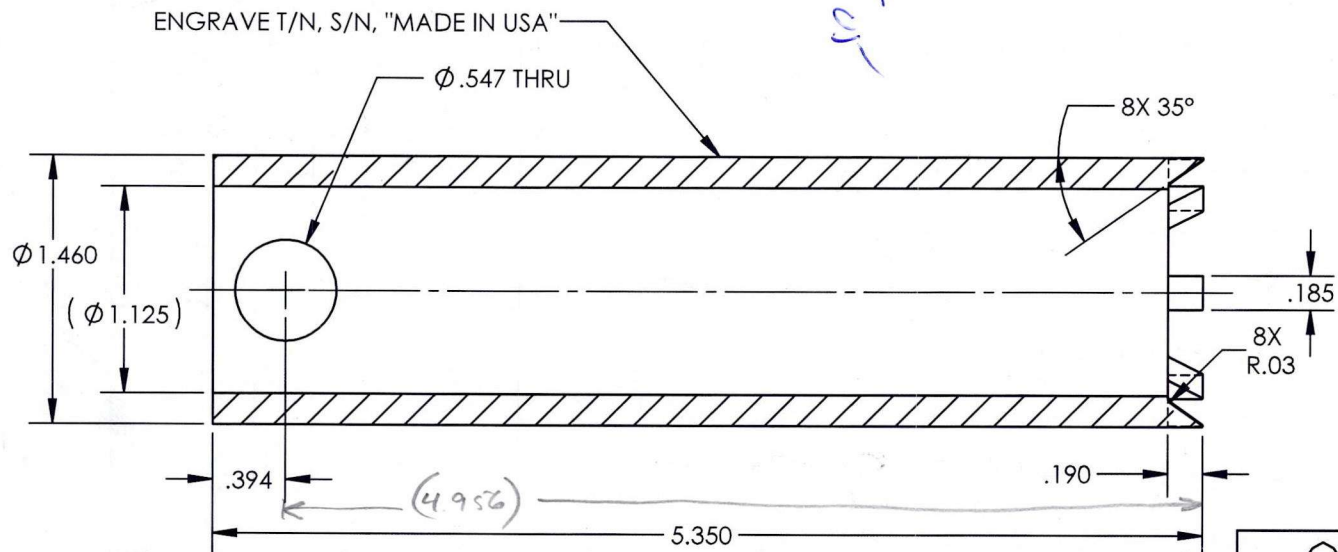
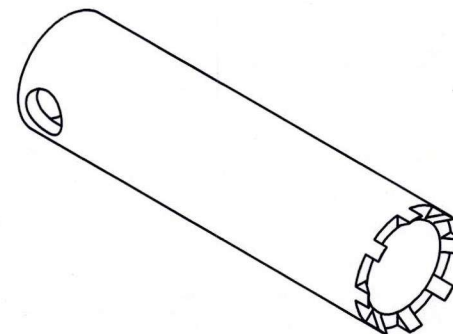
Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
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Other/Details:					

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REVISIONS			
REV	DESCRIPTION	DATE	INITIAL



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 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 187485 M5-1812-05



SECTION A-A

RED BARN MACHINE	
TITLE WRENCH, FLIGHT CONTROL SERVO-ACTUATOR JOINT R&I	
DWG NO. RBW109-3101-75-101	REV
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	DRAWN BY: CLOUGH
DECIMALS .XXX ± .005	APPROVED <i>D. Weil</i>
.XX ± .01	HEAT TREAT
.X ± .1	FINISH CAD PLATE YELLOW
FRACTIONS ± 1/32	SPEC QQ-P-416F, TYPE II, CLASS II
ANGLES ± 5°	USED ON MODEL
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	AW119
SCALE 1:1	DATE 4/26/2012 SHEET 1 OF 1

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
				1	WRENCH	DOM	Ø1-1/2 X 3/16 WALL X 5-1/2	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042400



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO042400

PO Date: 1/25/19

Due Date: 1/28/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pynt Terms: Net 60

Freight Terms:

Special Comments: Is it possible to have these for Monday?
Please advise**

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	184999	RBE105-31702W23-7	Measuring Flange RH Assembly -Issue P/O to GROUPE ALTECH: P/O -Zinc plate, ASTM B633 TYPE 1 SC2 -Color; Clear -Material type; 4140 -Certificate of Conformity is required	Firmed	-	1/28/19	2 pcs	0 pcs	2 pcs	\$15.00/pcs	\$30.00
2	187488	RBW109-3101-75-101	Wrench, Flight Controls Servo Actuator Joint Removal/Installation -Issue P/O; _____ -Zinc plate, ASTM B633 TYPE 2 SC2 -Color; yellow -Material type; 4140 -Certificate of Conformity is required	Firmed	-	1/28/19	6 pcs	0 pcs	6 pcs	\$15.00/pcs	\$90.00
3	187057	RBBP-1404-1-3	Weldment -Issue P/O ; _____ -Zinc plate, ASTM B633 TYPE 1 SC2 -Color; Clear -Material type; 1018 -Certificate of Conformity is required	Firmed	-	1/28/19	4 pcs	0 pcs	4 pcs	\$15.00/pcs	\$60.00
Grand Total:											\$180.00



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PURCHASE ORDER PO042400



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



Certificat de Conformité / Certificate of Compliance

(016311-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

016311- 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
29-Jan-2019		Jessie Boisvert		042400 ✓				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	RBE105-31702W23-7 ✓ Rev.	RBE105-31702W23-7 01 -ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT] 24 HRS ASTM B633 TYPE 1 SC2	ZINC CH	2	2 ✓	0	0	0
2	RBW109-3101-75-101 ✓ Rev.	RBW109-3101-75-101 01 -ZINC-YELLOW [ZINC YELLOW] OLD YELLOW CHROMATE, 96 hours ASTM B633 TYPE 2 SC2	ZINC CH	6	6 ✓	0	0	0
3	RBBP-1404-1-3 ✓ Rev.	RBBP-1404-1-3 01 -ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT] 24 HRS ASTM B633 TYPE 1 SC2	ZINC CH	4	4 ✓	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.